Coasts, rivers and the water cycle

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Week number  One long and one short lesson in each week. | Objective | Learning | Key Vocabulary | Curriculum Links |
| 1 | WALT: name the three courses of a river and features of them.   1. I can name the three courses of the river and label them correctly. 2. I can explain features of each course. 3. I can suggest what the surrounding landscape of each part of the course could look like and give examples from my locational knowledge. | Quiz on previous river learning (see yr4)  Introduce vocab Upper, Middle and Lower Courses of a river- what do they think this means? Give range of vocabulary to match up to photos on tables:  -narrow v shaped channels, steep gradients, rapids, waterfalls, gorges  - gentle gradients, wide channel, wide valley, meander, meander loop  - deeper, wider channels, flood plain  Give matching time then talk through the courses, chn rearrange vocab and order of courses if needed. Act as water in each part of the course as it is narrated again.  Make three part rivers using clay as river beds and structures from Lego . Take photos and label with the features and notes about them. Explain what the surrounding landscape might look like in each course. | upper,  middle and lower courses  channel  gorge  steep  gradient  rapids  valley  meander  flood plain | The Amazon yr2 (Rainforests)  Longest Rivers & Settlers Yr3  Rivers and SettlersYr4  Moving on to Rivers- (the sea end) in Yr6 |
| 2 A | WALT: explain erosion and deposition in each course of the river.   1. I can explain what erosion and deposition are in relation to rivers. 2. I can explain the erosion and deposition in each course of a river. 3. I can suggest issues or changes which this could cause to the surrounding landscape and its people. | Vocab meaning matching from week 1- check own work using Knowledge Organisers.  What do we understand by the term erosion? (They may link to Rocks in Science in Yr4) Establish a common definition (dictionary modelling if req)  On which course of the river would you expect erosion to be greatest? Why?  Introduce and explore the term deposition, why is this a natural extension of erosion?  Which course do you expect to see the least deposition on? Why?  Model the type of erosion and deposition in each course of the river.  Chn create a mini guide to erosion and deposition in rivers. | vertical erosion  lateral erosion  deposition  raised levees  delta | Moving on to: Coastal Erosion in yr6  Rocks in yr4  Link to Niagra Falls (Term 1- USA) |
| 2B | WALT: to know that a confluence is when a tributary joins a river.  1.I can explain the terms confluence and tributary.  2. I can give different examples of tributaries.  3.I can explain why some tributaries may be a different colour to the river which they are joining. | Paired questioning on vocab used in lessons 1 and 2A on Knowledge Organisers.  Show the images from here without explanation- what do they think is happening?  <https://twistedsifter.com/2012/04/confluences-around-the-world/>  Explain what a tributary is- identify some in an atlas. Explain that they come in many sizes.  Look back through the photos and discuss them as confluences. Why are they different colours- make chn aware that not all confluences are two different colours! | tributary  confluence | Longest rivers vs British rivers yr3  Rivers yr4  Moving on to Rivers of UK yr6 |
| 3A | WALT: explain how a beach is formed.   1. I can explain some of the features of sand. 2. I can explain what happens to rocks to create sand. 3. I can link this to my learning about rock types. | Play ‘true or false’ with info about wk2- check answers in Knowledge Organiser  Investigate some sand. What do you know about beaches? Conversation…  Establish that we generally consider them to be made of sand. But how does the sand get there?  Show a smooth rock from the beach vs a rough one from the garden. Why are they different? What has happened to the one from the beach that didn’t happen to the one from the garden?  Watch this: <https://www.bbc.co.uk/bitesize/clips/zc2pvcw>  Why are some beaches sandier than others? Take suggestions. Discuss reasons. Send them away with ipads to research the answers. Come back together to discuss and summarise.  Write a letter to a rock dropped from someone’s garden onto a beach to explain what is going to happen to it.  Which types of rocks will break down fastest on a beach? Why? | Beach  Waves  Erosion  Pebbles | Beach/ island study- yr2  Rocks (Science) yr3  Moving on to coasts, yr6 |
| 3B | WALT: Explain how sand dunes are formed.   1. I can explain how the wind is involved in forming sand dunes. 2. I can explain how vegetation is involved in forming and maintaining sand dunes. 3. I can explain why man made sand dunes are difficult to maintain. | Quiz each other on KO knowledge so far.  Look at the sand dunes at Saunton Sands on Google Earth- what can we observe about them? Why are they there? How are sand dunes made? Make some predictions.  Watch the first part of this.  <https://www.youtube.com/watch?v=5W3_y5_3w9A>  Draw a flow chart for making a dune.  Could we make a sand dune ourselves? What might be the issues with this?  Watch second part of video and discuss. | Sand Dune  Vegetation  Erosion | Beaches Yr2  Moving on to:Coastal erosion in Yr6 |
| 4 | WALT: explain what tides are and how they are caused.   1. I can explain what is meant by low and high tide. 2. I can explain how the moon causes the tides. 3. I can use scientific vocabulary and understanding in my explanation. | Fill in cloze text passage about the formation of sand dunes. Check answers in books from previous work.  Look at time lapse video of a tide going out: <https://www.youtube.com/watch?v=yQnpWyXMyL8>  What is happening here? What will happen next? Discuss hypotheses for why they think it happens.  Discuss gravity and the moon’s gravitational pull on the Earth. Act out the high tides vs low tides. Show model.  Understand that when it is high tide here, it is low tide elsewhere.  <https://theconversation.com/curious-kids-how-does-the-moon-being-so-far-away-affect-the-tides-on-earth-105371>  Supermoon high tide:  <https://www.youtube.com/watch?v=WrfNfsOEAdg>  Produce scientific film to explain tides. | High tide  Low tide  Gravitational Pull | Forces in yr5 (Summer Term)  Space in Yr5 (Summer Term) |
| 4B | WALT: Explain why tides can be dangerous.   1. I can explain how the movement of the tides can make playing on the beach dangerous. 2. I can give specific examples of the dangers. 3. I can suggest ways to stay safe on the beach in relation to the tides. | How can tides be dangerous?  <https://www.youtube.com/watch?v=ZbzfZnkwxso> St Michel’s Mount what could happen here  <https://rnli.org/safety/know-the-risks/tides> Use info from here.  <https://www.bbc.co.uk/news/uk-england-lancashire-25986388> Morecombe Bay Tragedy.  Create warning posters. | Sand bar  Causeway | Coasts Yr6  School Value: Safe |
| 5A and B | WALT: understand the main features of a salt marsh, lagoon and tidal pool.   1. I can explain the wildlife features. 2. I can explain the plant features. 3. I can explain how they are formed. | Definition match to a selection of vocab so far. Check using Knowledge Organisers.    Split the class into teams and ask them to research and present information about one of the following:  Salt marsh, Lagoons, Tidal pools  Decide on key questions to be researched as class.  Create large display presentation and present to class.  Children fill in key info sheet using the group presentations. | Salt marsh  Lagoon  Tidal Pool | Beaches Yr2  Moving on to Coasts Yr6 |
| 6A and B | WALT: Explain the water cycle.   1. I can describe the basic process of the water cycle. 2. I can explain a variety of ways in which water is stored on Earth. 3. I can explain a variety of ways in which water moves including through transpiration. | Quiz on water cycle key learning from yr4. Reinforcement as necessary. Act out water cycle as we know it.  Create three headings,  Water storage  Water movement on the Earth  Water movement in the air  Ask them to fill in what they already know about this then introduce new vocab. Allow discussion about where this might fit and what they might mean. Look at each new piece in detail and on the diagram.  Create own quiz about the water cycle using diagram and Knowledge Organiser.  Quiz each other. | Vocab from yr4  Evaporation  Condensation  Precipitation  Transpiration  Evapotranspiration  Groundwater flow  Groundwater storage  Seepage  Infiltration  Plant uptake  Runoff | Yr4- basic water cycle  Plants Yr2 and Yr3  Rivers Yr4, Yr5 |

N.B When working on maps in term 3 the class will use this knowledge in mapping the area around the river in Willington.